In the claims:

1. (Currently amended) A method for determining a depth of drilling in objects, comprising the steps of measuring a path over which a resistance produced by an object to be processed counteracts a processing tool during its advance movement, based at least on measurements of a resistance proportional signal and an axial speed proportional signal ; and using the measured path for determination of a depth of drilling in the object.

2. (Original) A method as defined in claim 1; and further comprising using the determined path for generation of at least one signal selected from the group consisting of a penetration signal, a material thickness signal, and both.

3. (Original) A method as defined in claim 2; and further comprising using the at least one signal selected from the group consisting of a penetration signal, a material thickness signal, and both, as an input signal for further processes.

4. (Currently amended) A method as defined in claim 3; and further comprising performing at least one of said further processes as a

visualization of the at least one generated signal selected from the group consisting of a penetration signal, a material thickness signal, and both of the object near the processing tool, as an input signal for further processes.

5. (Original) A method as defined in claim 4; and further comprising providing the visualization in form of a marking on the object to be processed by a process selected from the group consisting of printing and spray painting.

6. (Original) A method as defined in claim 1; and further comprising using as the processing tool as a tool selected from the group consisting of a chip-removing tool and a non-chip removing tool.

7. (Original) A method as defined in claim 6; and further comprising using as the processing tool a tool selected from the group consisting of a drill and a mill.

8. (Original) A method as defined in claim 1; and further comprising processing the object to be processed in form of a material composite, in which the material composite is composed of a plurality of

layers selected from the group consisting of metallic layers, non-metallic layers and both.

9. (Original) A method as defined in claim 8; and further comprising processing the object to be processed as a material composite composed of at least two carbon fiber plates which are fixed with one another by an adhesive material.

10. (Original) A method as defined in claim 1; and further comprising retaining without consideration load fluctuations within a path which is covered by the processing tool during its advance movement through an element selected from the group consisting of the object to be processed and a material composite.

11. (Withdrawn) A method as defined in claim 1; and further comprising using the at least one generated signal selected from the group consisting of a penetration depth signal, a material thickness signal, and both, for selection of at least one connection element.

12. (Withdrawn) A method as defined in claim 11; and further comprising using as the connection element a rivet with a rivet shaft length selected in correspondence with the at least one signal selected from the group consisting of a penetration depth, a material thickness and both.

13. (Withdrawn) A method as defined in claim 1; and further comprising generating a wear signal which corresponds to wear of the processing tool, with consideration of the resistance to the processing tool during covering the path.

14. (Withdrawn) A method as defined in claim 1; and further comprising generating a speed signal which determines a parameter of the processing tool selected from the group consisting of an advance speed and a rotary speed, based on a covered path and on the resistance counteracting the processing tool.

15. (Original) A method as defined in claim 1; and further comprising using piezo sensors for measuring the path.

16. (Withdrawn) A device for determination of a penetration depth, comprising a processing machine; a guiding carriage displaceably

guided over at least one guide track; sensor means mounted on said guiding carriage; a signal amplification unit and a control and evaluation unit associated with said sensors and forming input signals of said control and evaluation unit from voltage signals generated by said sensors.

17. (Withdrawn) A device as defined in claim 16, wherein said processing machine is provided with at least one processing tool; and further comprising a processing-space and mounting robot associated with said processing machine, said control and evaluation unit generating output signals which provide an automatic taking from supply magazines of elements selected from the group consisting of connection elements, processing tools, and both.

18. (New) A method for determining a depth of drilling in objects, comprising the steps of measuring a path over which a resistance produced by an object to be an object to processed counteracts a processing tool during its advance movement, based on sensing a resistance proportional signal and at least one axial speed proportional signal; and using the measured path for determination of a depth of drilling in the object by using the resistance proportional signal and the axial speed proportional signal as input signals of an evaluation unit, calculating by the evaluation unit

a depth proportional output signal, and defining at least a penetration depth signal by the output signal.